

## Unit 3B Investigating pattern

### ABOUT THE UNIT

In this unit children investigate patterns in textiles from different times and cultures. They use ideas from these as a starting point for developing their own designs. They investigate stencilling and print-making techniques and explore ways of combining and organising shapes, colours and patterns to make a decorative textile piece.

### WHERE THE UNIT FITS IN

This unit could be linked with a visit to a museum. It could be linked with mathematics: recognising that shapes can be rotated and transformed by visualising or using a computer. It builds on Unit 4A 'Money containers' in the design and technology scheme of work when children try decorative techniques and Unit 4B 'Developing images using repeating patterns' in the ICT scheme of work.

### WHAT THE UNIT COVERS

Art	Craft	Design	2D	3D	Individual work	Collaborative work
Line	Tone	Colour	Pattern	Texture	Shape	Form Space
Painting	Collage	Textiles	Digital media	Sculpture	Print making	

### VOCABULARY

In this unit children will have an opportunity to use words and phrases related to:

- printing skills, eg *stencil print, stippling, block print, roller, printing ink, calico, hessian*
- visual and tactile elements, eg *geometric shapes, space, symmetry, identical, reflective, rotate, translation, pattern, repeat, motif*

### RESOURCES

#### For practical work

- 'background' fabric, eg *calico, hessian*
- paper for design and stencil work
- stippling or large hog's hair brushes
- fabric or water-based paint, treated with PVA
- materials for print making, eg *base boards, sponge*
- if possible, a computer paint package with a range of repeat, rotate and edit features, and a scanner

#### Suggested examples of art, craft and design

- examples of printed textiles and papers showing bold shape and pattern
- designs from different cultures, eg *Indian printed textiles, Islamic tiles, Gujarati shisha, Bengali kanthas work, Scandinavian designs, Asafo work from Ghana*

### EXPECTATIONS

#### At the end of this unit

*most children will be able to:*

explore how shape and colour can be organised and combined to create patterns for different purposes; collect visual information; experiment with stencilling and print-making techniques to make a printed pattern; comment on similarities and differences between their own and others' work; adapt and improve their own work, according to its purpose

*some children will not have made so much progress. They will be able to:*

explore shape, colour and pattern; use stencilling and print-making techniques to make a printed pattern; talk about the differences between their own and others' work; suggest improvements for their own work

*some children will have progressed further. They will be able to:*

explore relationships between shape, colour and pattern and textile materials and processes; collect visual and other information with a purpose in mind; choose and experiment with materials and techniques to suit their intentions; compare the ideas, methods and approaches used in their own and others' work; improve and adapt their own work according to its purpose

**LEARNING OBJECTIVES**

**POSSIBLE TEACHING ACTIVITIES**

**LEARNING OUTCOMES**

**POINTS TO NOTE**

CHILDREN SHOULD LEARN

CHILDREN

**EXPLORING AND DEVELOPING IDEAS**

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| <ul style="list-style-type: none"> <li>to compare ideas, methods and approaches in others' work</li> </ul>   | <ul style="list-style-type: none"> <li>Ask the children to collect examples of pattern and to list all the ways that pattern is used at home and where it is found in the environment. Ask the children to make studies in their sketchbooks. Make a display of this material as a starting point for the work.</li> <li>Compare the shapes and patterns in designs from different times and cultures. Notice when patterns are made up of simple shapes and when they are based on animals, plant forms or other objects.</li> <li>Ask the children to identify the ways the patterns are made, eg <i>how shapes overlap, repeat</i>.</li> <li>Discuss the different materials and techniques found in the patterns and how they are used and combined, eg <i>printed shapes on clay, engraved in wood</i>.</li> </ul>  |
| <ul style="list-style-type: none"> <li>to combine visual and tactile qualities of materials and processes and to match these qualities to the purpose of the work</li> </ul> | <ul style="list-style-type: none"> <li>Ask the children to cut out multiple copies of a simple paper shape. Ask them to arrange the shape in different patterns, using a grid to ensure the pattern they make is repeated regularly.</li> <li>Encourage the children to use their knowledge and understanding of mathematics to create different patterns, eg <i>rotate, reflect, transform in different positions (half drop, full drop)</i>.</li> <li>Ask the children to cut out a second shape, thinking about its relationship to the first shape. <i>Will it be a similar shape but larger or smaller? Will it be a contrasting shape, size and colour? How will it be positioned in relation to the first shape? Will it overlap, be set inside or fit a space in between?</i></li> <li>Ask the children to use ICT and explore:                     <ul style="list-style-type: none"> <li>how paint software can be used to explore symmetry</li> <li>how a shape can be copied, re-sized and multiple copies made</li> <li>how to flood fill shapes with different colours</li> </ul> </li> <li>Ask the children to generate a range of colourways by applying colour ranges or sets. Ask them to print out a range of repeat patterns and compare these with each other.</li> </ul> |

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| <ul style="list-style-type: none"> <li>identify simple shapes and those based on animals, plant forms or other objects</li> <li>describe different ways that patterns are made</li> <li>identify materials and techniques and how these are used in patterns</li> </ul> | <ul style="list-style-type: none"> <li>Remind the children that pattern is made when a shape is repeated many times. Throughout history, pattern has been used to increase the value of objects and to display the skill of the craftsman, eg <i>painted on tiles, embroidered on fabric, printed on wallpaper, woven in carpets, inlaid in wood, carved in stone, etched in glass, engraved in metal, marked on skin</i>.</li> <li>Link with mathematics: visualise and predict where a shape will be following a rotation, reflection or translation and draw and identify two-dimensional shapes in different orientations on grids.</li> </ul> |
| <ul style="list-style-type: none"> <li>explore ways of making and creating their own patterns</li> </ul>  | <ul style="list-style-type: none"> <li>Show the children how to cut multiple copies of the same shape by folding and cutting to create symmetrical or asymmetrical shapes. Encourage them to keep shapes simple and clear in outline.</li> <li>The emphasis in this unit is on showing children the impact of repeating the shapes in different kinds of arrangements.</li> </ul>  |

**INVESTIGATING AND MAKING**

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| <ul style="list-style-type: none"> <li>to apply their experience of materials and processes, developing their control of tools and techniques</li> <li>to adapt their work according to their views and describe how they might develop it further</li> </ul> | <ul style="list-style-type: none"> <li>Ask the children to make a paper stencil of one of their shapes and a simple block for printing their second shape.</li> <li>Ask them to practise using stencil and stippling techniques and printing techniques to print shapes onto paper or fabric. Encourage them to overlap and arrange shapes to make patterns, blending and varying colours as a part of pattern making.</li> <li>Review children's experiments with stencil printing to ensure that they practise controlling stippling techniques and make a variety of patterns. Review the patterns the children make. Discuss the ways in which they are developing their own ideas.</li> </ul> |
| <ul style="list-style-type: none"> <li>to apply their experience of materials and processes, developing their control of tools and techniques</li> </ul>  | <ul style="list-style-type: none"> <li>Ask the children to make a two-colour pattern on paper or fabric. Ask them first to print a stencilled pattern with one shape and then to overlay the second shape (the block print) onto the first. Encourage them to choose a colour for the block print that will work well with the first colour, eg <i>strong contrast, shade or tint of the same colour</i>.</li> </ul>   |

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| <ul style="list-style-type: none"> <li>experiment with stencilling and block-printing techniques</li> <li>consider the development of their work at each stage</li> </ul> | <ul style="list-style-type: none"> <li>Guide children to cut stencils safely. Their stencils will need to be a suitable size for the background fabric. The block for printing can be made from foam sponge on a piece of firm card.</li> <li>Demonstrate stippling techniques, showing children how to control the consistency and amount of fabric paint. Show work and samples to set expectations. At the end of each session use examples of children's work to show good progress and control of techniques. Encourage the children to discuss how they developed their ideas.</li> </ul> |
| <ul style="list-style-type: none"> <li>make a two-colour printed pattern</li> </ul>   |   |

**EVALUATING AND DEVELOPING WORK**

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| <ul style="list-style-type: none"> <li>to compare ideas, methods and approaches in their own and others' work and say what they think and feel about them</li> </ul> | <ul style="list-style-type: none"> <li>Ask the children to identify and compare the different patterns they made in their work. Encourage them to use the vocabulary they learnt. <i>Which shapes are symmetrical? Which patterns use rotation? Which use reflection? Which patterns make effective use of the printing techniques? Why do you think this? Which patterns would you like to wear or have on your bedroom wall, curtains, cups and saucers? Why?</i></li> <li>Ask the children to think of a purpose for their work and where it might be displayed, eg <i>to decorate a space at home or to add interest to a space in the school</i>.</li> </ul> |
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| <ul style="list-style-type: none"> <li>identify the similarities and differences between their own and other children's work</li> <li>suggest different purposes for their work and where it might be used</li> </ul> | <ul style="list-style-type: none"> <li>Talk with children individually, in groups and as a whole class about how their work might be used or displayed. Talk about the reasons why we display and exhibit work.</li> </ul> |
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**PRIOR LEARNING**

It is helpful if children have:

- used shape and pattern in other art, craft and design work
- used simple print-making techniques, *eg monoprints, press prints*

**FUTURE LEARNING**

In Unit 5C 'Talking textiles', children investigate and use a range of materials, techniques and textile processes to create surface patterns and textures to communicate the ideas in a story.

**ADAPTING THE UNIT OF WORK**

Children could:

- investigate shapes and patterns in everyday objects on a theme such as plant forms
- develop their own design motif, which could be screen printed to create a pattern for a length of fabric
- adapt their design to print onto different items, *eg clothing, wallpaper, cushions*, by changing the scale, arrangement and colour to match the purpose

